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Response to Written Opinion

INTERNATIONAL PATENT APPLICATION NO. PCT/FI2004/000250
APPLICANT: RAISIO BENECOL OY ET AL.

Dear Sirs,

In response to the Written Opinion dated 6 September 2004, please consider the following.

In the Written Opinion a negative statement with regard to novelty of claims 1-10 and 12-33 and inventive step of claims 1-33 was issued. These negative statements should be withdrawn in view of the remarks below.

Remarks

1. Novelty

D1 (WO 01/54686 A) is discussed in the description on page 4. D1 discloses reducing the bitter taste of L-arginine by coating the same with a sterol, stanol, ester thereof or a polyol fatty acid polyester (page 2, lines 19-23). Examples 6-10 (pages 36-39) which are the only examples dealing with sterol/stanol esters, describe the preparation of some food products by mixing L-arginine coated with a mixture of a sterol and a sterol ester (or a mixture of a stanol and stanol ester) with peanut butter (Example 6), cheddar cheese (Example 7), cookie mix (Example 8), fat-free health bar (Example 9) and sports energy gel (Example 10). According to the Written Opinion the amount of sweetener may be reduced by another component. This is an obvious misinterpretation of the disclosure of D1. D1 specifically discloses that "these sugar sweeteners can be provided to some extent by other components of the beverage such as, for example, the fruit juice component" (page 28, lines 4-7). Thus, the disclosed amount of 0.1% to 20% sweetener (page 28, line 1) includes the fruit



juice component. Hence, D1 does not disclose food products wherein part of a sweetening agent is replaced with a sterol ester or food products wherein the amount of sweetening agent is reduced as compared to a regular product (claims 1, 2, 32 and 33). Nor does D1 anticipate the claimed compositions of claims 10-31. In conclusion, the claims are novel in view of D1.

D2 (WO 02/082929 A) is discussed in the description on page 3. D1 discloses food products comprising dietary fibre (β -glucan, psyllium or inulin) and a plant sterol including free sterols and stanols and esterified sterols and stanols (claims 1-7). In respect of an oat milk product comprising β -glucan, inulin and sterol, D2 sets forth that this product "brings forward a soft taste of oat by weakening the strong taste effect of β -glucan" (page 11, lines 25-28). This disclosure does not anticipate the basic features of the present invention which is based on the discovery that by introducing sterol ester into an edible product, the bitter, sour and/or astringent tastes of edible products could be masked by means of a reduced amount of sugar or other sweetening agents (page 5, lines 13-16). The specifically disclosed products of D2 contained a regular amount of sweeteners. Hence, D2 does not disclose food products wherein part of a sweetening agent is replaced with a sterol ester or food products wherein the amount of sweetening agent is reduced as compared to a regular product (claims 1, 2, 32 and 33). Nor does D2 anticipate the claimed compositions of claims 10-31. In conclusion, the claims are novel in view of D2.

D3 (WO 02/28204 A) corresponds to US 2002/0064548 A discussed on page 4 of the description. D3 discloses a method for dispersing plant sterol by melting an admixture of plant sterol and an emulsifier at 60-200°C, combining the molten mixture with an aqueous beverage, and stirring the combination at a high speed to give a dispersion of plant sterol in the beverage (claim 1). It should be emphasized that the problems underlying D3 and the solution set forth in D3 relate to free sterols not sterol esters (page 7, lines 16-23 and page 8, lines 22-25). Clearly D3 avoids sterol esters. D3 teaches that a clear dispersion of plant sterols is obtained without affecting the characteristic taste and flavor of beverages (page 8, lines 16-17). This teaching does not suggest that by introducing sterol ester into an edible product, the bitter, sour and/or astringent tastes of edible products could be masked by means of a reduced amount of sugar or other sweetening agents. All in all D3 is not pertinent.

In conclusion it is submitted that the present claims are novel in view of the cited documents.

2. Inventive step

It should be reminded that the present invention is based on the discovery that by introducing sterol ester into an edible product, the bitter, sour and/or astringent tastes of edible products could be masked by means of a reduced amount of sugar or other sweetening agents (page 5, lines 13-16). The

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beneficial effect of the present invention are verified by the sensory evaluations in Examples 2 and 3 showing that it was possible to reduce the amount of sucrose up to 30% when plant stanol ester was added into the products while keeping the bitter or sour taste of the products masked. None of the cited documents D1 to D3 disclose or suggest this key feature of the invention.

In conclusion it is submitted that the present claims show an inventive step in view of the cited documents.

Yours faithfully,
BERGGREN OY AB



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Enclosure EPO Form 1037